Inattention by road users and its contribution to road crashes in South Australia

Government of South Australia
Department for Transport, Energy and Infrastructure

Driving is a complex task, requiring drivers to use and coordinate a number of skills. Any lapse in concentration increases the risk of the vehicle being involved in a crash.

Unfortunately there are many activities that drivers can engage in while driving which have the potential to be distracting. To anticipate and avoid hazards on the road, drivers should give driving their full attention at all times.

Even so, drivers still engage in activities that distract their attention from the driving task. These include using mobile phones, eating, drinking, smoking, applying cosmetics, conversing with passengers, using audio equipment, and responding to distractions caused by children or other passengers. There is an ever increasing number of in-vehicle information, communication and entertainment systems including portable or in-car DVD players that are finding their way onto the market. Distractions outside the vehicle such as roadside advertising can also take the drivers' attention away from the task of driving.

Inattention is an issue in both rural and metropolitan areas, for all age ranges and for both males and females. Research shows that distractions whilst driving can cause:

- drivers to straddle lanes on a multi lane road or veer across the road
- drivers to drive inconsistently, speeding up or slowing down without apparent reason
- difficulty in maintaining appropriate following distances from vehicles in front (e.g. tailgating)
- less awareness of safe gaps in traffic
- slower reaction times and hence heightened crash risk
- impairment of the driver's judgment.

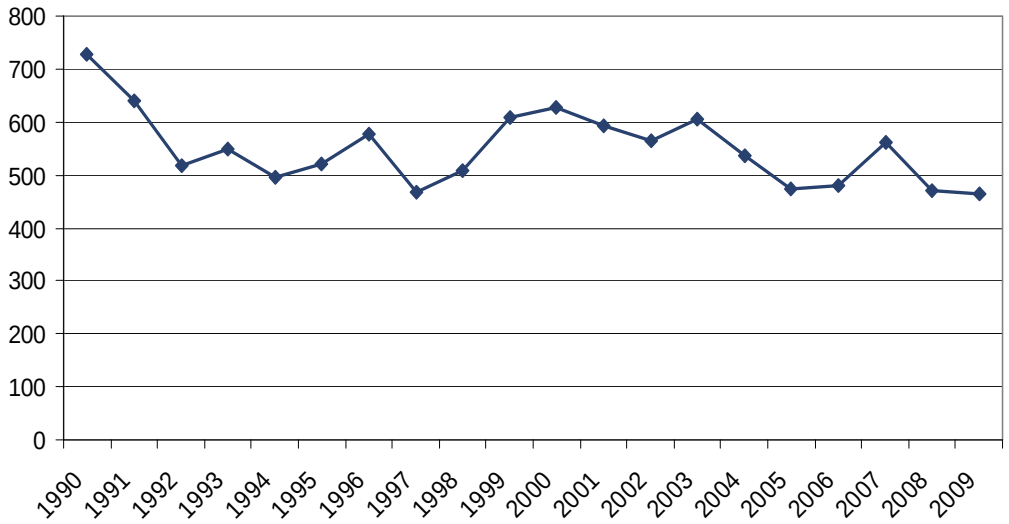
Research has also found that for younger drivers, having passengers in the vehicle can be a distraction and coupled with peer pressure can increase the risk of a crash.

It is often difficult to establish the cause of crashes, and there can be various competing factors. This paper discusses crashes that in which inattention was judged as being the main contributing factor by the police, and are hereafter referred to as 'inattention crashes.'

Inattention Crashes

Although the number of fatal and serious injury crashes where inattention was a contributing factor have declined 36% from 729 in 1990 to 464 in 2009, this compares to an overall reduction of 52% of all fatal and serious injury crashes. Figure 1 shows inattention crash rates over time.

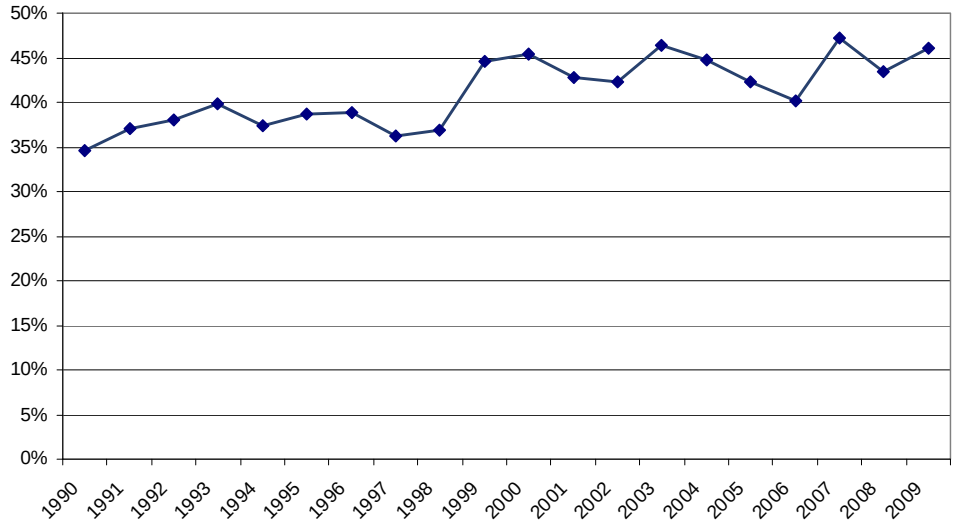
Figure 1: Fatal and serious injury crashes where inattention was the contributing factor, South Australia, 1990-2009



Furthermore, although inattention crashes have decreased, their percentage of all fatal and serious injury crashes has increased from 35% in 1990 to 46% in 2009. This could be attributed to the factors discussed above such as an increase of in-vehicle based technology that cause driver distractions, and the increase in use of mobile phones.

Inattention by road users has contributed to an average of 47 fatalities and 536 serious injuries per year between 2005 and 2009. Figure 2 shows the rate of serious casualties over time, where inattention has been reported as a contributing factor.

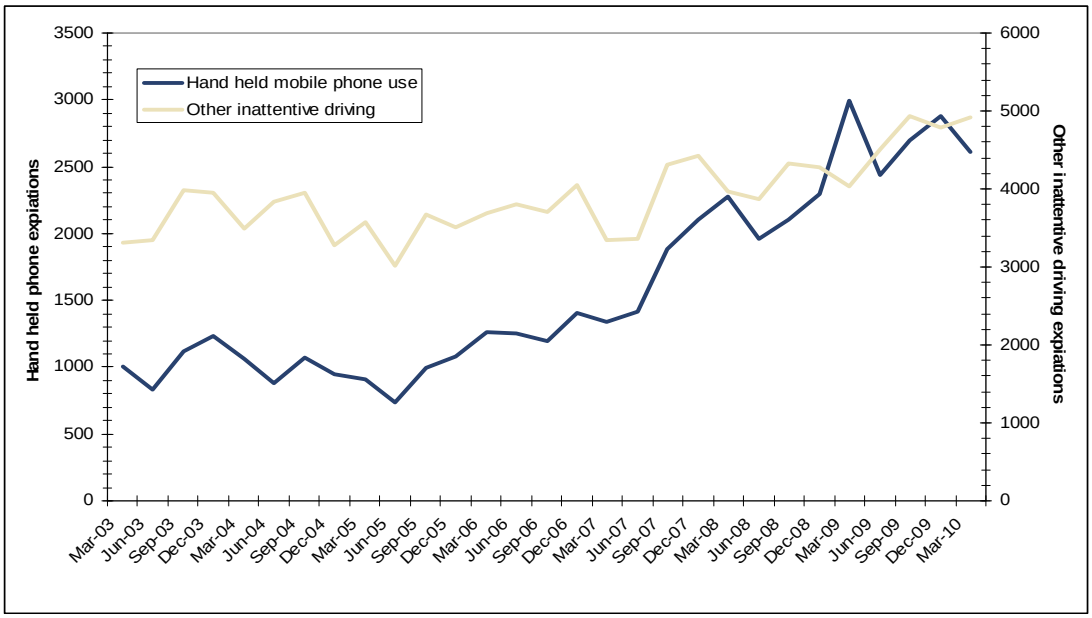
Figure 2: Percentage of all fatal and serious injury crashes where inattention was a contributing factor, South Australia, 1990-2009



Inattentive Driving Offences

There are over a 160 different offences related to inattentive driving. Expiations for using a handheld mobile phone have had a sharp rise since 2007. The number of expiations for hand held mobile phone use and other inattentive driving offences are show in Figure 3 below. The variation in inattentive driving offences over time could be due to differences in the incidence of inattentive driving or to varying enforcement activity by police.

Figure 3: Number of expiations for inattentive driving offences per quarter, 2003-2009[1]



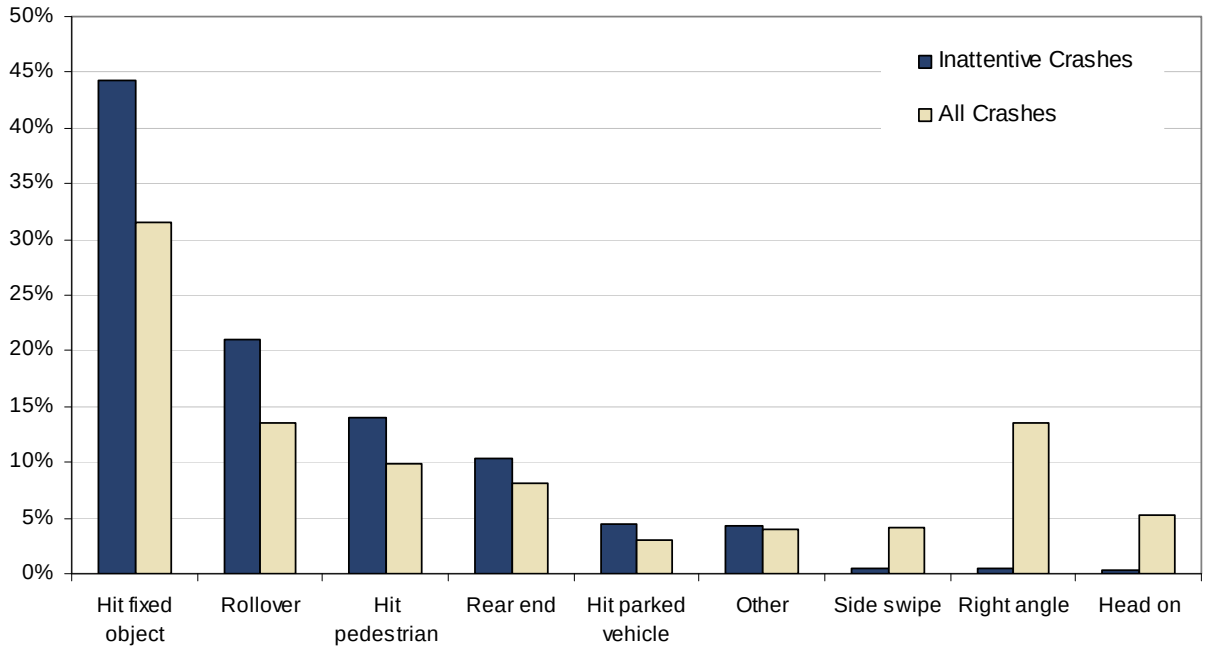
[1] Enforcement data supplied by the Traffic Intelligence Section, South Australia Police

The 2009 National Community Attitudes to Road Safety Survey[2] showed that 92% of South Australian drivers had a mobile phone and 61% reported that they used a mobile phone while driving. This is a significant increase from the 2006 Community Attitudes Survey where 42% of South Australian drivers admitted to using a mobile phone while driving.

Crash Types

Figure 4 shows the percentage of the types of crashes that occur in fatal and serious injury inattention crashes compared to all fatal and serious injury crashes. Inattentive drivers who crash are more likely to hit fixed objects, hit pedestrians or rollover, they are far less likely to be involved in a right angle or right turn crash. If a driver becomes distracted from the road it is foreseeable that they could leave the roadway and hit fixed objects such as trees, lose control of the vehicle and roll over or not notice cyclists and pedestrians.

Figure 4: Comparison of inattentive and all fatal and serious injury crash types (percentage), South Australia, 2005-2009



[2] Community Attitudes to Road Safety:2009 survey report, Social Research Centre, Department of Infrastructure, Transport, Regional Development and Local Government, December 2009.

Unit Types

Although inattention is often attributed to in-vehicle factors such as passengers, use of audio equipment, or mobile phone use, these are unlikely to be factors when riding a motorcycle. However motorcycle inattention crash rates (where the rider is at fault) are over 5% higher than all fatal and serious injury crashes. Figures remain similar for heavy vehicle drivers and slightly lower for car and light truck drivers, as shown in Table 5.

Table 5: Unit types for drivers/riders deemed responsible for inattentive crashes compared to all fatal and serious crashes, South Australia, 2005-2009

Unit Type	Inattention Crashes	All Crashes
Car and Light Truck	76.8%	82.31%
Heavy Vehicle	4.62%	4.71%
Motorcycle	17.97%	12.29%
Bus	0.53%	0.53%
Other	0.05%	0.16%
Total	100.00%	100.00%

Speed

Fatal and serious injury inattention crashes are more prevalent on higher speed roads than crashes generally and hence more common in rural areas. The consequences of losing concentration at a higher travelling speed are likely to be more serious than on lower speed roads. Table 6 shows that nearly 7% more inattention crashes occur on roads with speed limits 100km/h and higher, compared to fatal and serious injury crashes generally.

Table 6: Percentage of fatal and serious injury crashes by road speed limit, South Australia, 2005-2009

Speed Limit	Inattention Crashes	All Crashes
50km/h and under	22.4%	23.2%
60km/h	25.7%	31.2%
70-90km/h	13.0%	13.4%
100km/h +	38.8%	32.1%
Unknown	0.1%	0.1%
Total	100%	100%

Weekday and Time of Day

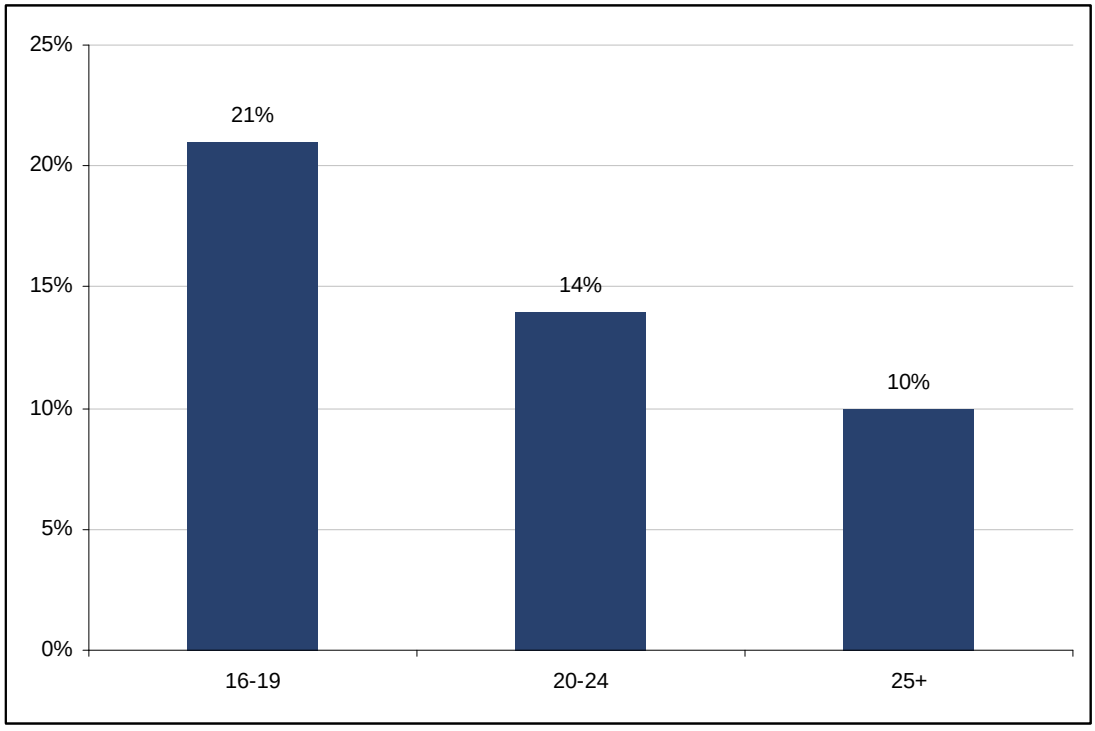
Days and times of the day that inattention crashes occur are consistent with fatal and serious injury crashes generally. Inattention crashes are spread fairly evenly across weekdays Monday through to Thursday. An increase is seen between Friday through to Sunday with 48% of crashes occurring on these days.

Likewise times of the day for inattentive crashes are consistent with fatal and serious injury crashes, the majority of inattentive (37.8%) and all (36.1%) fatal and serious injury crashes occur between noon and 6pm.

Age

Research shows the risk of young drivers crashing increases when carrying two or more passengers in the vehicle. In South Australia, 21% of drivers aged 16 to 19 involved in fatal or serious injury crashes from 2005 to 2009 were driving with two or more passengers – see Figure 7. By contrast, 14% of drivers aged 20 to 24 and 10% of drivers aged 25 and over involved in fatal or serious injury crashes were carrying two or more passengers.

Figure 7: Drivers (by age group) at fault, involved in fatal and serious injury crashes with two or more passengers as a percentage of total crashes, South Australia, 2005-2009



45% of fatal and serious injury crashes, with drivers aged between 16 and 19 years, carrying two or more passengers in the vehicle occurred between the hours of 10pm and 4am. These crashes are concentrated during the weekend, two-thirds (66%) occurring between Friday and Sunday.

Definitions of police reported casualty types:

Casualty Crash - A crash where *at least one* fatality, serious injury *or* minor injury occurs.

Casualty – A fatality, serious injury or minor injury.

Fatal Crash - A crash for which there is *at least one* fatality.

Fatality - A person who dies within 30 days of a crash as a result of injuries sustained in that crash.

Serious Injury Crash - A non-fatal crash in which *at least one* person is seriously injured.

Serious Injury - A person who sustains injuries and is admitted to hospital as a result of a road crash and who does not die as a result of those injuries within 30 days of the crash.

Minor Injury Crash - A crash for *at least one* person sustains injury but no person is admitted to hospital or dies within 30 days of the crash.

Minor Injury – A person who sustains injuries requiring medical treatment, either by a doctor or in a hospital, as a result of a road crash and who does not die as a result of those injuries with 30 days of the crash.

Property Damage Only Crash – A crash resulting in property damage in excess of the prescribed amount in which no person is injured or dies within 30 days of the crash.

Data sources

The data presented in this reports was obtained from the Department for Transport, Energy and Infrastructure Road Crash Database. The information was compiled from police reported road casualty crashes only.

Figures relating to the current year are preliminary and are subject to revision.

Enquiries

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